Representing UKESM at CERN

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Before I started working in the UKESM project, I worked on an entirely different project: the ATLAS experiment at CERN. CERN is the European Organization for Nuclear Research: it is the largest particle physics laboratory in the world and hosts the Large Hadron Collider, as well as many significant physics experiments. Between 2006 and 2010, I completed a PhD working on B-physics with the ATLAS detector, including two years at the CERN site just outside Geneva. I was quite lucky to be on site for the excitement of the first beam, the first collisions and the early results.

Perhaps because of the contrast between my PhD and my current work with the UKESM, the CERN alumni network invited me to participate in a panel discussion at their annual careers event this November. The target audience for this event was current PhD students and early career scientists at CERN, who for whatever reason want to leave the field of particle physics or who are unable to remain. The goal of the event was to put them in contact with CERN alumni in other fields and to demonstrate that life is indeed possible for physicists outside the world of high energy physics.

The panel discussion was led by Sebastian Bott of the alumni network, and consisted of Sarah Livermore, from the UK committee for climate change; Xavier Rouby, a consultancy entrepreneur; Jacopo Nardulli, an international baccalaureate science teacher; and myself, representing the UK's earth system modelling project. The panel discussion covered numerous topics, notably what skills we developed at CERN, how we apply the skills learned there to our current work, what the main differences are between high energy physics and our current positions, and how we got from our PhD to where we are now. The event also included several opportunities for questions from the audience and breaks for informal discussions. I was lucky to meet many young scientists who were interested in potentially studying climate change.

In addition to the panel discussion, the event had several fantastic talks showing off a range of career paths available to physicists, including software development at google, particle physics in medical applications, working in the energy sector, or in high-tech software application, such as facial recognition software.

The invited alumni were also taken on a guided tour of the Anti-matter factory, which houses the new anti-proton decelerator, ELENA. We saw many experiments studying the properties of anti-matter. We also had the chance to visit the CMS experiment's control room, the microcosm and the Globe of Science and Innovation visitor centres.

Image Captions:

A) The AntiMatter Factory, which houses several experiments testing the nature of anti-matter, the anti-proton decelerator (AD) and the ELENA Decelerator. **B**) The ELENA anti-proton decelerator. This hexagonal storage ring slows down the anti-protons produced by the AD before sending them to the experiments. **C**) A Large Hadron Collier dipole magnet. This is a functional spare LHC magnet, and is one of many on display scattered around CERN and the greater Geneva area. **D**) The Wandering the Immeasurable sculpture, sitting outside the Globe of Science and Innovation visitor centre. **E**) The CERN alumni event panel; left to right: Sarah Livermore, Lee de Mora, Sebastian Bott, Jacopo Nardulli and Xavier Rouby.